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Rupert B. Hurley Jr.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors:

RAMESH et al

Group Art Unit: 3721

Serial No.:

10/041,129

Examiner: Gerrity, Stephen Francis

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Title: "HEAT-SHRINKABLE MULTILAYER PACKAGING FILM COMPRISING

INNER LAYER COMPRISING A POLYESTER"

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## REPLY BRIEF UNDER 37 CFR § 41.37

Sir:

This Reply Brief is being filed further to the Examiner's Answer mailed 21 September 2005.

## **REMARKS**

The content of the Examiner's Answer indicates that a central issue in this appeal is whether office action reliance on Applicants' Admission of Prior Art ("AAPA") inherently includes reliance upon US Patent No. 5,336,549, to Nishimoto et al ("NISHIMOTO et al"). The Examiner's Answer states that the Examiner is relying upon

AAPA as set forth at page 2 lines 5-15 of Appellants' specification, and not NISHIMOTO et al. However, A review of Appellants' specification indicates that Page 2 lines 5-15 is in fact a discussion of NISHIMOTO et al:

U.S. Patent No. 5,336,549, to Nishimoto et al., discloses a heat-shrinkable film that can be made into bags. Apparently, users of this film, which is commercially available, have discovered that bags made from the film can be stacked on top of one another during sealing, without sticking to one another (i.e., the bags are "stack-sealable"). This enables the output of vacuum chamber packaging machinery to be, for example, doubled, if two bags are stacked on top of one another and simultaneously sealed.

The film disclosed in the '549 patent has an outer layer of a polyester, and an intermediate layer of a polyamide having a melting point of higher than 160°C and lower than 210°C. Although Nishimoto et al discloses a large group of polyamides for use in an inner layer, together with various polyesters for use in an outer layer, Nishimoto does not disclose the use of an inner layer comprising polyester.

[Page 2, lines 5-15]

Contrary to the statement in the Examiner's Answer, it is clear that these paragraphs pertain to NISHIMOTO et al. Perhaps the Examiner intended to refer to the paragraph spanning Pages 1 and 2 of Appellants' specification, i.e., Page 1 line 22 – Page 2 line 4:

Recently it has been discovered that certain commercially-available bags can be sealed when stacked on top of one another, i.e., without sticking to one another. This non-sticking characteristic provides an advantage for packaging in a vacuum chamber, because the chamber, although typically having only one sealing means, has more than enough space therewithin for multiple bagged products which are to be sealed after evacuation of the atmosphere from the chamber. Thus, the non-sticking feature enables the evacuation and sealing of more than one bag at a time in a vacuum chamber, thereby increasing the production rate of the vacuum chamber packaging apparatus. [Page 1 line 22 – Page 2 line 4]

If in fact this is the portion of Appellants' specification the Examiner intended to rely upon, Appellants contend that this paragraph is directed to the stack sealing of bags supplied by Kureha, i.e., bags produced in accordance with NISHIMOTO et al.

As is readily apparent from a comparison of the page and line numbers, Page 1 line 22 – Page 2 line 4 of Appellants' specification is concurrent with, present in sequence with, and present in conjunction with, the two paragraphs on Page 2 lines 5-15 of the specification. Other than the Kureha bags, Appellants are not aware of any other prior art bags used in a stack sealing process. The polyester outside layer on the Kureha bags is an unusual feature on a heat-shrinkable bag used for packaging meat. Those who utilized these bags in a prior art stack sealing process have been in a position to know that Kureha produced these bags. Investigation of the structure of these bags would have led one of ordinary skill in the art to have realized that the bags were produced in accordance with NISHIMOTO et al, this patent being assigned to Kureha. Thus, AAPA inherently includes NISHIMOTO et al; more over, *AAPA is inseparable from NISHIMOTO et al*.

Appellants are prepared to file a Declaration under 37 CFR 1.132 in support of these facts. However, Appellants submit that such a declaration is unnecessary because of the above-described relationship between the quoted paragraphs. Still more particularly, Page 1 lines 33-34 of the specification refers to the discovery of the stack-sealability of "certain commercially-available bags", and thereafter Page 2 lines 5-8 refers to the film of NISHIMOTO et al as having been "commercially available" and that users of the film have discovered that bags made from the film can be stack sealed. The specification provides no indication that there is any other commercially-available bag which can be stack sealed. Again, Appellants know of no other prior art bag that had been utilized in a stack sealing process. Thus, it is clear that AAPA includes

only the bags of NISHIMOTO et al. One of ordinary skill in the art, reading Appellants' application as a whole, would take from the above three paragraphs that stack sealing had been conducted with the bags of NISHIMOTO et al.

As such, the Appeal Brief correctly points out the various differences between NISHIMOTO et al and Appellants' claimed invention. The Examiner's Answer admits that these arguments have not been considered. However, there is no basis in Appellants' specification to support a rejection based on AAPA without consideration of the differences between NISHIMOTO et al and Appellants' invention. In the Brief on Appeal, Appellants have clearly pointed out why their invention is patentable over stack sealing of the bags of NISHIMOTO et al (i.e., AAPA) in view of BAUER et al:

- (1) The office actions have not set forth any motivation to modify NISHIMOTO et al by changing from an intermediate layer comprising polyamide to an intermediate layer comprising polyester,
- (2) The office actions have not set forth any motivation to modify NISHIMOTO et al by changing from an intermediate layer comprising polyamide to an intermediate layer comprising a polyester having a melting point of from about 130°C to about 260°C;
- (3) Substitution of a polyester for the polyamide in the internal layer of the film of NISHIMOTO et al has the effect of changing the principle of operation of NISHIMOTO et al, in that NISHMOTO et al requires a low-melting polyamide to facilitate stretching;
- (4) There is no reasonable expectation of success that substituting a polyester having a melting point of from about 130°C to about 260°C will permit the production of a film having the heat-shrink character taught by NISHIMOTO et al; and
- (5) Impermissible hindsight is required to select the one-in-forty combination of polymers from BAUER et al to make a bag to be used in a stack sealing process, where the office action sets forth no motivation for using BAUER et al to modify NISHIMOTO et al to arrive at a different bag one would have realized was useful for use in a stack sealing process.

Page 6 line 9 through Page 7 line 5 of the Examiner's Answer refers to the final Office Action and states that Appellants have not separately argued dependent claims 23-43. Appellants respond that they need not separately argue these dependent claims because the rejection of Claim 22, and all claims depending therefrom, is clearly erroneous for all of the reasons set forth above. As no prima facie case of obviousness has been set forth for Claim 22, no prima facie case of obviousness has been set forth for any one or more of dependent claims 23-43.

Page 6 lines 19-21 of the Examiner's Answer further states that, with reference to the rejection based on AAPA in view of BAUER et al, Appellants "did not specifically respond to the particular rejection set in the first office action." This statement is not understood. Appellants have responded to each and every rejection set forth in each of the office actions. Appellants are not aware of any documents from the PTO indicating that any of Appellants' responses has been incomplete for failing to respond to one or more grounds of rejection. As pointed out above, AAPA is the use of the bag of NISHIMOTO et al in a stack sealing process, and therefore inherently includes the teachings of NISHIMOTO et al. Taking this position responds to the rejection based on AAPA in view of BAUER et al. Taking this position is a response that independent Claim 22 is patentable over AAPA in view of BAUER et al, as well as being a response that each of Claims 23-43 is patentable over AAPA in view of BAUER et al. Moreover, by implication it appears that the PTO agrees that Appellants' claims are patentable over NISHIMOTO et al, as the office actions have gone so far as to be clear in stating a negative, i.e., that NISHIMOTO et al is not being relied upon in any of the rejections of

Appellants' claims. Of course, it is Appellants' position that if AAPA is being relied upon, then NISHIMOTO et al is being relied upon. Upon review of NISHIMOTO et al, it is clear that Appellants' claims are patentable thereover, for at least the reasons set forth above, which reasons are detailed in the Appeal Brief.

Page 6 line 24 through Page 7 line 5 of the Examiner's Answer sets forth an excerpt from Page 13 of the final Office Action. This excerpt states that Appellants have not challenged the Examiner's statements regarding the obviousness of the melting point language of Claim 22 or the other composition limitations recited in the dependent claims, and that Appellants failed to respond to the specific 103 rejection in the response after final. Of course, Appellants contend that the Examiner's earlier statement of obvious-to-optimize-a-result-effective-variable is rendered moot because NISHIMOTO et al teaches away by teaching toward a polyamide for the internal film layer, rather than a polyester having a melting point of from about 130°C to about 260°C. Again, reliance on AAPA is reliance on NISHIMOTO et al. This position addresses the patentability of each of Claims 22-43.

Turning next to the statements regarding BAUER et al as set forth from Page 7 line 8 through Page 9 line 4 of the Examiner's Answer, Appellants point out that the AAPA in view of BAUER et al rejection relies upon the stack sealing of the bags in AAPA, with the bag films being modified using all of the many possible multilayer constructions disclosed in BAUER et al. This rejection fails to set forth a prima facie case of obviousness because AAPA includes NISHIMOTO et al, for all of the reasons set forth above. It would not have been obvious to modify NISHIMOTO et al by changing the polyamide in the internal layer to select the polyester from BAUER et al to replace

the polyamide of NISHIMOTO et al, because NISHIMOTO et al states that the polyamide layer is needed to provide "stretching processability". NISHIMOTO et al at Col 2 lines 64-68. The office actions have not pointed to any reason one of skill in the art would think that polyester could be substituted for the polyamide and provide the requisite "stretching processability" of the polyamide. Still further, none of the office actions provide <u>any</u> explanation as to why it would have been obvious to substitute polyester for the polyamide in the intermediate layer of the film of NISHIMOTO et al, particularly in the face of the teaching of the need for a particular polyamide in NISHIMOTO et al. Without an explanation why the modification would have been obvious, no prima facie case of obviousness has been set forth.

The Examiner continues to cite MPEP 2131.02 in support of the position that BAUER et al meets the claimed bag structure. MPEP 2131.20 is directed to anticipation by a prior art reference disclosing a species against a claim reciting the species alone or together with other species. Appellants again contend that MPEP 2131.02 pertains only to rejections under §102, i.e., when *the entire claim reads on* the single species disclosed in the reference. In citing the case of In re Sivaramakrishnan, MPEP 2131.02 pertains to a rejection under §102, not §103 (i.e., anticipation based on entire claim reading on single reference document). As to whether BAUER et al anticipates any one or more of the claims on appeal, Appellants respectfully point out that they are not claiming a bag. All of Appellants' claims are directed to a process. The process utilizes a first bag and a second bag in a stack sealing process. Even if BAUER et al were to teach or suggest a bag made from a multilayer film as recited in Appellants' Claim 22, such teaching or suggestion would not anticipate any of Appellants' process claims, because it is clear that

nowhere does BAUER et al teach or suggest Appellants' recited stack sealing process. In addition to setting forth the criteria establishing anticipation, 35 USC 102 is recognized as also setting forth the criteria for whether a document qualifies as a reference for use under §102 or §103. In stark contrast, MPEP 2131.02 pertains to anticipation rejections, not whether a document qualifies as a reference. Setting forth a prima facie case of unpatentability under §103 requires a substantially greater showing than setting forth a rejection under §102. Whether BAUER et al teaches or suggests a bag made from the multilayer film recited in Appellants claim is arguable, because one must pick and choose to construct the recited multilayer film. However, even if BAUER et al is deemed to so teach, the issue remains one of obviousness, because one must combine BAUER et al with AAPA (which includes stack sealing, among additional features) to arrive at Appellants' claimed process. Combining teachings is required in every obviousness rejection, but not in any rejection to which MPEP 2131.02 pertains. In summary, MPEP 2131.02 is mutually exclusive of <u>all</u> obviousness rejections, the remarks in the Examiner's Answer notwithstanding.

Page 9 lines 5-17 of the Examiner's Answer states that the motivation to combine can be found in the fact that BAUER et al teaches heat-shrinkable bags for the packaging of meat products. Appellants agree that BAUER so teaches, but Appellants do not agree that this teaching is the requisite motivation for a prima facie case of obviousness. In other words, Appellants ask: why does this teaching make it obvious to modify the bag used in AAPA? Clearly, the answer is that this statement is devoid of any *reason* for one of ordinary skill in the art to have substituted the bag of BAUER et al for the bag of AAPA. The reason must include a suggestion of the desirability of the combination. See

MPEP2143.01. There is also no reason (other than prohibited hindsight analysis) to select the particular layer combination selected in the office actions. That BAUER et al discloses a bag suitable for meat packaging, and that BAUER et al discloses the bag as being heat shrinkable, is not adequate motivation, because the bag of AAPA had both of those features. Thus, motivation to modify AAPA has not been set forth. No prima facie case of obviousness has been set forth.

As the AAPA is the primary reference, it is interesting to pause and consider: What precisely is "the bag of AAPA"? The Office Actions are devoid of any description of the layer arrangement and layer composition of the film used to make "the bag of AAPA"; the Office Actions expressly state that AAPA is **not** NISHIMOTO et al. Thus, in so far as the Office Actions are concerned, BAUER et al is being used to modify the unstated, even the unknown. However, returning to the question of the layer arrangement and layer composition of "the bag of AAPA", the answer is clear: "the bag of AAPA" is the bag of NISHIMOTO et al, because AAPA is the prior use of the bag of NISHIMOTO et al for stack sealing, as explained in detail above.

Page 9 line 18 through Page 10 line 4 of the Examiner's Answer states that the bag structure recited in the claims does not affect the manipulative steps of the claims beyond it being provided, and that "...it is quite obvious to do the same method with <u>any</u> other type of bag structure." [Emphasis Added] Appellants respectfully submit that this statement is unsupported. If the outside layer of the bag film has a melting point low enough to cause the layer to melt during stack sealing (which is the case for the vast majority of commercially-available heat-shrinkable bags for meat packaging), the bags will stick together, and the stack sealing process will fail because the bags will not be

readily separable. Therefore, this statement stands as further evidence that impermissible hindsight analysis has been used to select from BAUER et al only those multilayer arrangements suitable for use in stack sealing. Of course, this impermissible hindsight is also required to arrive at Appellants' claimed invention. The office actions have not set forth any motivation for selecting from BAUER et al only the particular layer arrangements and layer compositions set forth in the office actions. A review of the record reveals that the sole basis for the motivation for selecting was nothing other than the content of Appellants' claims.

Finally, Page 10 lines 5-6 state that Appellants have not argued dependent Claims 23-46 separately. Appellants have made this choice deliberately. Appellants contend that the arguments set forth above adequately establish the patentability of independent Claim 22, and thereby also establish the patentability of dependent Claims 23-46.

## Conclusion

In view of all of the foregoing amendments and remarks, Applicants respectfully request reconsideration of the patentability of Claims 22-46, with a view towards allowance. Finally, Appellants are requesting an Oral Hearing by the concurrent and separate filing of a paper entitled "Request for Oral Hearing under 37 C.F.R. §41.73.

Respectfully submitted,

Rupert B. Hurley Jr

Reg. No. 29,313

(864)433-3247

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